

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
 (Chapter II of the Patent Cooperation Treaty)
 (PCT Article 36 and Rule 70)

Applicant's or agent's file reference 12493692	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/AU2004/001316	International filing date (day/month/year) 24 September 2004	Priority date (day/month/year) 24 September 2003
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ A61M 15/00		
Applicant MEDI-STREAM PTY LTD et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☒ (sent to the applicant and to the International Bureau) a total of 6 sheets, as follows:
 - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:
- | | |
|--|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

Date of submission of the demand 21 July 2005	Date of completion of the report 16 August 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer KAREN VIOLANTE Telephone No. (02) 6283 7933

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AU2004/001316

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:

☐ international search (under Rules 12.3 and 23.1 (b))

☐ publication of the international application (under Rule 12.4)

☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

☐ the international application as originally filed/furnished

☒ the description:

pages 1-5, 7-30 as originally filed/furnished

pages* 6, 6A-6B received by this Authority on 21 July 2005 with the letter of 21 July 2005

pages* received by this Authority on with the letter of

☒ the claims:

pages as originally filed/furnished

pages* as amended (together with any statement) under Article 19

pages* 1-3 received by this Authority on 21 July 2005 with the letter of 21 July 2005

pages* received by this Authority on with the letter of

☒ the drawings:

pages 1/30 - 30/30 as originally filed/furnished

pages* received by this Authority on with the letter of

pages* received by this Authority on with the letter of

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages

☐ the claims, Nos.

☐ the drawings, sheets/figs

☐ the sequence listing (*specify*):

☐ any table(s) related to the sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages

☐ the claims, Nos.

☐ the drawings, sheets/figs

☐ the sequence listing (*specify*):

☐ any table(s) related to the sequence listing (*specify*):

If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-22	YES
	Claims	NO
Inventive step (IS)	Claims 1-22	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-22	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

NOVELTY Claims 1-22:

The invention defined in claims 1-22 is novel, as none of the cited prior art discloses a portable medication holder for holding a medication container and discharging a liquid agent therefrom, the portable medication holder comprising: a housing including a first wall forming a chamber or part thereof; an air pathway passing through the chamber; a second wall engaging the first wall, and moveable between a closed position in which the chamber and air pathway are sealed and an open position in which the air pathway is open; evaporation means to assist in evaporation of the liquid agent into air in the air pathway; a medication discharge chute for directing the air pathway to a user; and opening means for opening the medication container and releasing the liquid agent to the evaporation means.

INVENTIVE STEP Claims 1-22:

The subject matter of these claims is not rendered obvious in view of the teachings of any prior art documents taken in combination or in combination with common general knowledge.

INDUSTRIAL APPLICABILITY:

All claims have industrial applicability.

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1A20 Rec'd PCT/PTO 24 MAR 2006

1. A portable medication holder for holding a medication container and discharging a liquid agent therefrom, the portable medication holder comprising:

a housing including a first wall forming a chamber or part thereof;

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an air pathway passing through the chamber;

a second wall engaging the first wall, and moveable between a closed position in which the chamber and air pathway are sealed and an open position in which the air pathway is open;

10

evaporation means to assist in evaporation of the liquid agent into air in the air pathway;

a medication discharge chute for directing the air pathway to a user;

and

opening means for opening the medication container and releasing the liquid agent to the evaporation means.

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2. The portable medication holder of claim 1 including the medication container located in the chamber or in fluid communication with the chamber.

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3. The portable medication holder of claim 2, wherein the medication container is a vial, ampoule bottle or canister and is frangible, at least in part.

4. The portable medication holder of claim 3, wherein the liquid agent is methoxyflurane.

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5. The portable medication holder of claim 3, wherein the second wall is formed as a cover or sleeve.

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6. The portable medication holder of claim 3 wherein the opening means is automatically activated by moving the second wall to the open position.

7. The portable medication holder of claim 3, wherein the opening means includes a striker adapted to open the medication container.

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8. The portable medication holder of claim 7, wherein the striker is activated by sliding the second wall to the open position.
- 5 9. The portable medication holder of claim 3, wherein the opening means includes a punch to open a frangible seal in the container.
- 10 10. The portable medication holder of claim 3, wherein the opening means includes a seat to grip a cap, which may be a screw cap, of the container.
11. The portable medication holder of claim 2, wherein the opening means includes a plunger to pressurise and discharge the liquid agent.
- 15 12. The portable medication holder of claim 2, wherein the evaporation means comprises a wick material.
13. The portable medication holder of claim 2, wherein the evaporation means comprises an evaporation plate or plates or a grid.
- 20 14. The portable medication holder of claim 2, wherein the evaporation means forms a serpentine or tortuous path as part of the air pathway.
15. The portable medication holder of claim 1, wherein the medication chute is rotatable between a stowed position and a deployed position.
- 25 16. The portable medication holder of claim 1, wherein the medication chute further includes a gas line for delivering a respiratory gas.
- 30 17. The portable medication holder of claim 1, wherein the medication chute includes an auxiliary air inlet adapted for occlusion by a digit of a user.

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18. The portable medication holder of claim 1, further including one or more one-way valves in the intake air pathway to provide unidirectional inspiratory airflow.

5 19. The portable medication holder of claim 18, wherein the medication chute is in fluid connection with an outlet one-way valve for expired air.

10 20. The portable medication holder of claim 19, wherein the medication chute is in fluid connection with a filter for removing medication from expired air.

21. The portable medication holder of claim 2, wherein the portable medication holder is sealed against the external environment when not in use.

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22. The portable medication holder of claim 6 including a strap, preferably a wrist strap, attached to the second wall.

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As noted, in inclement circumstances, the risk of contamination may be significant. A sealed, safe and robust storage arrangement would be of advantage, particularly if designed for easy and effective use when required.

5 Use of therapeutics in emergency situations may present different risks which can be highly serious. Delivery of an analgesic, for example, requires an arrangement that is robust, reliable and easy to operate. This is particularly the case in the circumstance of self-administration where a user may be, at least partially, incapacitated by injury or people lending assistance may be untrained in first aid.

10 Reference to any prior art in this specification is not, and should not be taken as, an acknowledgement or any form of suggestion that this prior art forms part of the common general knowledge in any country.

SUMMARY OF THE INVENTION

15 Throughout this specification, unless the context requires otherwise, the word "comprise", or variations such as "comprises" or "comprising", will be understood to imply the inclusion of a stated element or integer or group of elements or integers but not the exclusion of any other element or integer or group of elements or integers.

20 In one aspect, the invention may reside in a portable medication holder for holding a medication container and discharging a liquid agent therefrom, the portable medication holder comprising a housing including a first wall forming a chamber of part thereof;

25 an air pathway passing through the chamber, a second wall engaging the first wall, and moveable between a closed position in which the chamber and air pathway are sealed and an open position in which the air pathway is open, evaporation means to assist in evaporation of the liquid agent into air in the air pathway;

a medication discharge chute for directing the air pathway to a user;
and

30 opening means for opening the medication container and releasing the liquid agent to the evaporation means.

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The device may include the medication container located in the chamber or in fluid communication with the chamber.

5 The medication container may be a vial, ampoule bottle or canister and is frangible, at least in part.

The liquid agent is preferably methoxyflurane.

The second wall may be formed as a cover or sleeve.

Preferably the opening means is automatically activated by moving the second wall to the open position.

10 The opening means may include a striker adapted to open the medication container.

The striker may be activated by sliding the second wall to the open position.

15 The opening means may include a punch to open a frangible seal in the container.

The opening means may include a seat to grip a cap, which may be a screw cap, of the container.

Alternatively or additionally, the opening means may include a plunger to pressurise and discharge the liquid agent.

20 The evaporation means may comprise a wick material.

Alternatively the evaporation means may comprise an evaporation plate or plates or a grid.

The evaporation means preferably forms a serpentine or tortuous path as part of the air pathway.

25 The medication chute is preferably rotatable between a stowed position and a deployed position.

The medication chute may further include a gas line for delivering a respiratory gas.

30 The medication chute may include an auxiliary air inlet adapted for complete or partial occlusion by a user.

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The portable medication holder may include one or more one-way valves in the intake air pathway to provide unidirectional inspiratory airflow.

5 The medication chute is preferably in fluid connection with an outlet one-way valve for expired air.

The medication chute may be in fluid connection with a filter for removing medication from expired air.

Preferably the portable medication holder is sealed against the external environment when not in use.

10 The portable medication holder may include a strap, preferably a wrist strap attached to the second wall.

In one alternative form, although it need not be the only or indeed the broadest form, the invention resides in a medication holder, the medication holder comprising:

15 a housing including a first wall defining a cavity dimensioned to receive and enclose, at least in part, a medication container; and

a second wall abutting the first wall and moveable relative thereto; wherein:

20 the second wall may be moved reversibly between a first closed position to a second open position, the second open position providing or facilitating access to a medication discharge outlet of the medication container wherein the cavity is sealed against ingress of moisture or other contaminants when the second wall is in the closed position.

25 The medication holder may include a medication container positioned in the cavity.

Positioning of the second wall in the second open position preferably provides or clears an airflow pathway for inhalation and, optionally, expiration. The